

**Before the House Committee on the New Economy and Quality of Life
Hearing on Senate Bill 47 – Bill to Provide for the Establishment of a Water Improvement Tax
Increment Finance Authority**

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Mr. Chairman and members of the Committee, thank you for the opportunity to present testimony on Senate Bill 47. Michigan Sea Grant's interest in the quality of the state's surface waters, including inland lakes, is related to the quality of waters tributary to the Great Lakes themselves. Approximately 98% of the state's surface area drains to the Great Lakes, therefore inland water quality has a significant and immediate impact on Great Lakes water quality. Our testimony focuses on Section 3 (g) and associated subsections that outline the specific water quality problems this legislation is intended to address.

Michigan Sea Grant's Interest in Water Quality

An intensive stakeholder process with individuals, organizations, local, state, tribal and federal agency representatives in 2004 identified water quality as an important issue for Michigan Sea Grant's constituents.

"Water quality continues to be one of the more significant issues affecting aquatic habitat in the Great Lakes basin, as well as impacting human use, health and the productivity of Great Lakes ecosystems. These, in turn, affect the economic and social well being of coastal communities and businesses, which are reliant upon clean water and healthy fish and wildlife populations."

- Michigan Sea Grant College Program, *Strategic Plan, 2005-2010*.

Specific comments on Section 3 (g) and associated subsections follow below.

- (i) The elimination of the causes and the proliferation of aquatic nuisance species**
(i) The elimination of the causes and the proliferation of aquatic nuisance species, as defined in section 3101 of the natural resources and environmental protection act, 1994 PA 451, MCL 324.3101. For purposes of this act, water resources improvement does not include chemical treatment of waters for aquatic nuisance control.

Michigan Sea Grant supports efforts to limit the introduction of invasive species into inland lakes and, where possible, control their spread both within specific lakes and to additional inland lakes. These efforts, however, should not restrict boating and fishing access to lakes available for public use. The State has an obligation to ensure the public trust right to access the waters of the state.

Additional consideration may be given to encouraging properly vetted biological control mechanisms, such as the use of milfoil weevil for the aquatic invasive plant Eurasian Watermilfoil.

- (ii) Sewer systems that replace failing on-site disposal systems.**
On-site waste disposal systems, most frequently septic tanks, especially those associated with former vacation properties that are now occupied as second homes and primary residences, are being stressed and failing in many areas. The need to find a cost-effective approach to addressing this issue is pressing, particularly because long-term failure of these systems increases nutrient loading to inland lakes, and therefore the Great Lakes. Increased nutrients in lake systems due to leaking septic systems are associated

with increased algal blooms – number, size and duration. When those algae die, they sink to the bottom of the lake and are decomposed by bacteria that use oxygen. Fish kills can result especially when the lake is covered with ice. Where zebra mussels are present, there is an increased incidence of the blue-green algae *Microcystis*, which produce the toxin microcystin that has been associated with animal deaths and is believed to cause liver damage in humans.¹ Additionally, leaking septic tanks are increasingly associated with the presence of human waste, such as human coliforms, in both ground and surface water.² To the extent that this legislation provides an efficient, cost-effective mechanism for inland lake communities to address these challenges through funding of sewerage systems, this legislation is important.

(iii) Storm water systems.

Similar to comments related to failing onsite sewage disposal systems above, storm water increases as the amount of impervious surface (built infrastructure including buildings, parking lots, roads) increases in a watershed. Stormwater is remarkably efficient at picking up a variety of elements that negatively impact water quality including, but not limited to, sediment, nutrients, chemicals (e.g., pesticides, herbicides), oils and other material on the ground. Effective measures that can be taken to address stormwater – both quantity and quality – that reaches inland lakes and eventually the Great Lakes will have an important impact on overall water quality.

¹ Sarnelle, O., A. E. Wilson, S. K. Hamilton, L. B. Knoll, and D. E. Raikow. 2005. Complex interactions between exotic zebra mussels and the noxious phytoplankter, *Microcystis aeruginosa*. *Limnology and Oceanography* 50:896-904.

² Reneau, RB; Hagedorn, C; Degen, MJ, Fate and Transport of Biological and Inorganic Contaminants from On-site Disposal of Domestic Wastewater. *Journal of Environmental Quality* Vol. 18, No. 2, p 135-144, April/June 1989.

Erin K. Lipp, Samuel A. Farrah, and Joan B. Rose, Assessment and Impact of Microbial Fecal Pollution and Human Enteric Pathogens in a Coastal Community, *Marine Pollution Bulletin*, Vol. 24; Issue 4, April 2001, pp. 286-293.